

Notice of Allowability	Application No.	Applicant(s)	
	10/082,928	HUNTER ET AL.	
	Examiner	Art Unit	
	VAN T. PHAM	2656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/05/2005.
2. ☒ The allowed claim(s) is/are 9-11, have been renumbered as 1-3, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

In claims:

2. Claims 8, 15-31 cancelled (note that claims 15-31 cancelled because in nonelected claims without traversed and the application is in condition for allowance).

Claim 8 cancelled because: claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Natio et al. (US 6,850,480) in view of Kasada et al. (US 6,413,607) (noted that this rejection was discussed over the phone interview with Applicant's representative, Grzegorz S. Plichta, on Dec 21, 2005).

Natio et al., see Fig. 1 discloses a storage media for storage of data thereon, the storage media comprising: a first layer (see Fig. 1, element 11), the first layer being substantially transparent to a predetermined radiant energy used for reading the data (see col. 6, lines 3-13); and a second layer formed on the first layer and being substantially opaque to the radiant energy (see Fig. 1, elements 15, 16), the second layer having a pattern comprising a plurality of holes (see Fig. 1, element 14); and wherein the pattern comprises the plurality of holes arranged along a helix beginning near a center of the storage media and extending spirally outward, each successive pass of the helix being separated from a previous pass of the helix by a track pitch (see Fig. 1, elements 14, 15, col. 8, lines 26-40 and col. 9, lines 14-25), wherein a distance between successive holes is in a range of about 30 to 100 nanometers (see col. 19, lines 55-67).

However, Natio does not disclose each of the holes having a largest dimension, which is greater than a wavelength of the radiant energy, the data being stored as the presence or absence of a hole in the pattern, but Natio does disclose the relationship between sizes of pits and the wavelength of light (see col. 8, lines 26-40).

Kasada, according to col. 30, lines 42-53, which discloses the optical recording media has each of the holes having a largest dimension which is greater than a wavelength of the radiant energy.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a storage media for storage of data thereon has each of the holes having a largest dimension, which is greater than a wavelength of the radiant energy in Natio as suggested by Kasada, the motivation being in order to improve the recording density especially for high density (see Kasada abstract).

Reasons for allowance

3. The following is an examiner's statement of reasons for allowance:

Claims 9-11 are allowed over the prior art of record because:

Natio et al., see Fig. 1 discloses a storage media for storage of data thereon, the storage media comprising: a first layer (see Fig. 1, element 11), the first layer being substantially transparent to a predetermined radiant energy used for reading the data (see col. 6, lines 3-13); and a second layer formed on the first layer and being substantially opaque to the radiant energy (see Fig. 1, elements 15, 16), the second layer having a pattern comprising a plurality of holes (see Fig. 1, element 14); and wherein the pattern comprises the plurality of holes arranged along a helix beginning near a center of the storage media and extending spirally outward, each

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successive pass of the helix being separated from a previous pass of the helix by a track pitch (see Fig. 1, elements 14, 15, col. 8, lines 26-40 and col. 9, lines 14-25); and wherein diameter of the holes being about 50 nanometers, a distance between successive holes is in a range of about 30 to 100 nanometers (see col. 19, lines 55-67)

Kasada, according to col. 30, lines 42-53, which discloses the optical recording media has each of the holes having a largest dimension which is greater than a wavelength of the radiant energy.

Watanabe et al (Us 4,961,884) discloses the track pitch is 1.6. μ m (see col. 9, lines 6).

None of the cited references discloses or suggests a wherein the track pitch is about 100 nanometers. This feature in the combination with the other features of claims 9 or 10 or 11 are not anticipated by, nor made obvious over, the prior art of record.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Authorization for this examiner's amendment was given in a telephone interview with Grzegorz S. Plichta on Dec 21, 2005.

Cited References

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited references relate to:

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- a. A recording medium having a plurality of charges accumulating regions (Natio et al US 6,850,480).
 - b. Orectess for producing substrate of optical disc (Watanabe et al US 4,961,884).
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN T. PHAM whose telephone number is 571-272-7590. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HOA T. NGUYEN can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vp


HOA T. NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

12/27/05